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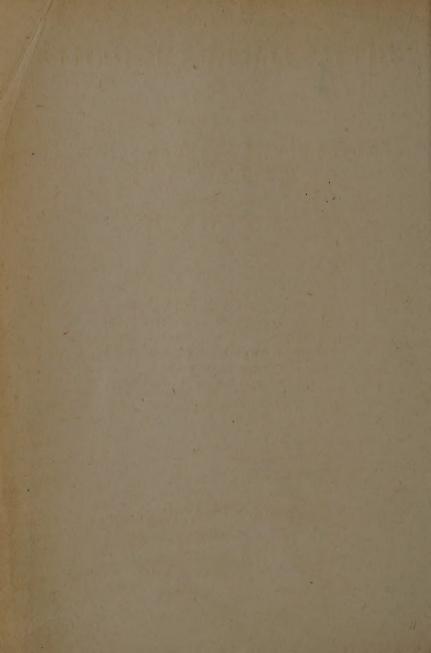
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- Angew. Chem. = Angewandte Chemie. Berlin. Verlag: Chemie GmbH. Weinheim/Bergstr. und Berlin.
- Ann. Astrophys. = Annales d'astrophysique. Paris. Verlag: Service des Publications du Centre National de la Recherche Scientifique, 45 rue d'Ulm, Paris (Ve).

- Ann. franc. Chronom. = Annales Françaises de Chronométrie. Observatoire National de Besançon.
- Ann. Géophys. = Annales de Géophysique. 165 Rue de Sèvres. Paris (XV°). Verlag: Service des Publications du C. N. R. S., rue d'Ulm, Paris 5°.
- Ann. Met. Hamburg. Annalen der Meteorologie. (Meteorol. Amt f. Nordwestdeutschland.) Hamburg.
- Ann. Phys. Lpz. = Annalen der Physik, Leipzig. Verlag; J. A. Barth, Leipzig C 1, Salomonstr. 18 b.
- Ann. Phys. Paris. = Annales de physique. Paris. Verlag: Masson et Cie, 120 Boulevard Saint-Germain, Paris (VI°).
- Ann. Radioélect. = Annales de radioelectricité. Paris. Verlag: Groupe de Radioéléctricité de la Companie Générale de Telégraphie sans Fil (R. S. F.) 79. Boulevard Haussman, Paris.
- Ann. Rev. Nucl. Sci. = Annual Review of Nuclear Science. Stanford, California.
- Ann. Télécomm. = Annales des télécommunications. Paris. Verlag: Centre National d'Etudes des Télécommunications. 24 Rue Bertrand. Paris (VIIe).
- Appl. sel. Res., Hague. = Applied Scientific Research. A. Mechanics, Heat. B. Electrophysics, Acoustics, Optics. The Hague.
- Arbeitsgem. Forsch. Nordrhein Westf. =
  Arbeitsgemeinschaft für Forschung
  des Landes Nordrhein-Westfalen. Verlag: Westdeutscher Verlag, KölnOpladen.
- Arch. Eisenhüttenw. = Archiv für das Eisenhüttenwesen. (Stahl und Eisen. Ergänzung). Düsseldorf. Verlag: Stahleisen. Düsseldorf, Schließfach 669.
- Arch. elektr. Übertr. = Archiv der Elektrischen Übertragung. Wiesbaden. Verlag: S. Hirzel, Stuttgart.
- Arch. tech. Messen = Archiv für technisches Messen. München. Verlag:
  R. Oldenburg, München, Lotzbeckstr. 2b.
- Archiw Elekt. = Archivum elektrotechniki. Warszawa. Redaktion: Warszawa, Koszykowa 75, Politech-

- nika, Gmach Elektrotechniki, Zaklad Elektroniki PAN.
- Arh. Hem. Farm. = Arhiv za kemiju. Zagreb. Arhiv kem. Verlag: Hrvatsko kemijsko drustvo, 19 Marulicév trg, Zagreb, Crotia, Yugoslavia.
- 4rk. Astr. = Arkiv für Astronomi. Kungliga Svenska Vetenskapsakademien, Stockholm 50. Verlag: Almquist & Wiksells Boktryckeri AB., Stockholm.
- Ark. Fys. = Arkiv für Fysik. Kungliga Svenska Vetenskapsakademien, Stockholm 50. Verlag: Almquist u. Wiksells Boktryckeri A.-B. Stockholm.
- Ark. Geofys. Arkiv för Geofysik. Kungliga Svenska Vetenskapsakademien, Stockholm 50. Almquist & Wiksells Boktryckeri A.-B., Stockholm.
- Ask. Warte. = Askania Warte, Berlin-Friedenau.
- Astronautica Acta, Springer Verlag,
- Astr. J. = Astronomical Journal. Yale Univ. Office New Haven.
- Astr. Nachr. = Astronomische Nachrichten Berlin. Verlag: Akademie-Verlag, Berlin W 8, Mohrenstr. 39.
- Astrophys. J. = Astrophysical Journal. (Univ. of Chicago.) Chicago and New York. Verlag: University of Chicago Press, 5750—58, Ellis Aven., Chicago, Illinois.
- Atomics = Atomics (London), Leonard Hill Technical Group, Eden House, 9 Eden Street, London N. W.
- Atomic Sci. J. London = Atomic Scientists Journal. Verlag Taylor & Francis, London.
- R. C. Accad. Lincei = Atti della Accademia Nazionale dei Lincei. Rendiconti. Roma. Verlag: Accademia Nazionale dei Lincei, Tipografia Bardi, Roma, Sallita dei Crescenzi 16.
- Audio Engng. = Audio Engineering. Radio Magazines, 342 Madison Avenue New York 17. Verlag: Radio Magazines Ins. Madison Ave., New York 17.
- Aust. J. Phys. = Australian Journal of Physics. Melbourne. Verlag: Australian

- Journal of Scientific Research Commonwealth Scientific and Industrial Research Organization 314 Albert Street East Melbourne, C 2, Victoria.
- BBC Nachr. = BBC Nachrichten. Hauszeitschrift der Brown, Boverie & Cie A. G., Mannheim.
- Battelle Tech. Rev. = Battelle Technical Review Columbus 1, Ohio.
- Beitr. Geophys. = Beiträge zur Geophysik. Leipzig.
- Bell. Lab. Rec. = Bell Laboratories Record. New York.
- Bell. Syst. Tech. J. = Bell System Technical Journal. New York. Verlag: American Telephone and Telegraph Co., 195 Broadway, New York 7.
- Ber. dtsch. keram. Ges. = Bericht der Deutschen Keramischen Gesellschaft. Berlin.
- Brennst. Wärmekr. = Brennstoff-Wärmekraft. Düsseldorf.
- Brit. J. appl. Phys. = British Journal of Applied Physics. Inst. of Phys. London.
- Brit. J. Radiol. N. S. = British Journal of Radiology. London. Verlag: British Institute of Radiology, 32 Welbeck Street, London W. 1.
- Brown Boveri Mitt. = Brown Boveri Mitteilungen. Baden, Schweiz.
- Bull. Amer. phys. Soc. = Bulletin. American Physical Society. Ithaca.
- Bull. Amer. Soc. Test. Mat. = Bulletin of the American Society for Testing Materials, Philadelphia.
- Bull. astr. Insts Csl. = Bulletin of the Astronomical Instituts of Czechoslovakia. Verlag: Akademie d. Wissenschaften, Prag.
- Bull. Cent. Phys. Nucl. Bruxelles = Bulletin du Centre de Physique Nucléaire de l'Université Libre de Bruxelles. Verlag: 50 Avenue F. D. Roosevelt, Brussels.
- Bull. Earthq. Res. Inst. Tokyo = Bulletin of the Earthquake Research Institute, Tokyo Imperial University. Tokyo.
- Bull. Electrotech. Lab. Tokyo = Bulletin of the Electrotechnical Laboratory. Tokyo. = (Denkisik iho = Denkisikenjo iho. Tokyo.)

- Bull. Fac. Engng. nat. Univ. Yokohama.
  Bulletin of Faculty of Engineering
  Yokohama National University.
- Bull. géod. Int. = Bulletin Géodésique Internationale. Bureau Central de l'Association Internationale de Géodésie. Verlag: 19 rue Auber, Paris (IX e).
- Bull. Kobayasi Inst. Phys. Res. Tokyo. =
  Bulletin of the Kobayasi Institute of
  Physical Research, Tokyo, Verlag:
  Kobayasi Inst. of Physical Research,
  Kokubunzi, Tokyo.
- Bull. Metrol. = Bulletin de Metrologie. Ministere des Affaires Economiques, Bruxelles 4, rue de la Loi 229.
- Bull. schweiz. elektrotech. Ver. = Bulletin. Schweizerischer Elektrotechnischer Verein, Zürich. Verlag: Selbstverlag Zürich.
- Bull. Signalétique. = Bulletin Signalétique (vorm. Bulletin Analytique).
  Centre de Documentation du C. N.
  R. S. Paris.
- Bull. Soc. chim. Fr. = Bulletin Société chimique de France. Paris, Masson u. Cie.
- Bull. Soc. franc. Céram. = Bulletin de la Société Française de Céramique. Verlag: Paris XVI, Société Française de Céramique, 44 Rue Copernic.
  - Bull. Soc. franc. Electriciens = Bulletin de la Société Française des Électriciens. Verlag: Paris (6°), Librairie-Imprimerie Gauthier-Villars, 55, Quai des Grands Augustins.
  - Bull. Soc. Ing. civ. = Bulletin de la Société des ingénieurs civils de France. Paris.
  - Bull. Soc. franc. Min. Crist. = Bulletin de la Société française de Minéralogie et de Cristallographie, Paris, Masson u. Cie.
  - Bull. Soc. Suisse Chronom. = Bulletin annual de la Société suisse de chronometrie et du Laboratoire suisse de recherches horlogères, Lausanne.
  - Canad. J. Phys. = Canadian Journal of Physics. Ottawa. Verlag: National Research Council of Canada, Ottawa.
  - Canad. J. Technol. = Canadian Journal of Technology. Ottawa. Verlag: National Research Council of Canada, Ottawa.

- Chalmers tek. Högsk. Handl. siehe trans. Chalmers Univ. Technol.
- Chartered Mech. Engr. = Chartered Mechanical Engineer. Journal of Institution of Mechanical Engineers, 1 Birdcage Walk, Westminster SW 1.
- Chem. Engng. Progr. = Chemical Engineering Progress. New York.
- Chem. Ing.-Tech. = Chemie-Ingenieur-Technik. Berlin. Verlag: Chemie, Weinheim/Bergstr.
- Chem. Ber. = Chemische Berichte. Chemie-Verlag G. m. b. H., Weinheim, Bergstr.
- Chem. Industr., Düsseldorf = Chemische Industrie, Düsseldorf. Verlag: Handelsblatt GmbH., Pressehaus, Düsseldorf.
- Circ. U. S. Bur. Stand. = Circular. United States Bureau of Standards.
- Commun. Kamerlingh Onnes Lab. Leiden. = Communications from the Kamerlingh Onnes Laboratory of the University of Leiden. Leiden.
- Commun. pure appl. Math. = Communications on Pure and Applied Mathematics. Interscience Publishers, New York.
- Control Engng, New York. = Control Engineering, New York, McGraw Hill, New York.
- C. R. Acad. Sci., Paris = Comptes rendus hebdomadaire des séances de l'Académie des sciences. Paris. Verlag: Gauthier-Villars et Cie. Paris.
- Czech. J. Phys. = Czechoslovak Journal of Physics. Central Institute of Physics, Cukrovarnickä 10, Praha-Strešovice.
- Dechema-Monogr. = Dechema Monographien. Frankfurt/M. W 13. Verlag: Dechema, Dtsch. Gesellschaft f. chem. Apparatewesen.
- Dtsch. Elektrotechnik, Berl. = Deutsche Elektrotechnik, Berlin. Verlag: VEB Verlag Technik.
- **Dtsch. hydrogr. Z.** = Deutsche hydrographische Zeitschrift. Hamburg.
- Disc. Faraday Soc. = Discussions of the Faraday Society. Aberdeen Univ. Press Ltd. 6 Upper Kirkgate Aberdeen.

- Dokl. Akad. Nauk SSSR (N.S.) (russ.) = Doklady Akademii Nauk SSSR Nowaja Seria. (russ.). Selbstverlag der Akademie Moskau-Leningrad.
- Draht = Draht. Fachzeitschrift für Draht-Herstellung, -Bearbeitung, -Verarbeitung. Coburg. Verlag: Prost & Meiner-Verlag, Bahnhofstr. 31.
- Elect. Engng, N. Y. = Electrical Engineering. American Institute of Electrical Engineers, 33 West 39th Street, New York 18.
- Electron. Engng = Electronic Engineering. 28 Essex Street, London W. C. 2.
- Electronics. = Electronics. New York. Mac-Graw-Hill.
- Elektrizitätswirtschaft = Elektrizitätswirtschaft. (Vereinigung der Elektrizitätswerke.) Göttingen, Maschmühlenweg 8—10.
- Elektron = das elektron.
- Elektronik München = Elektronik, Francis Verlag München.
- Elektronische Rundschau = Elektronische Rundschau. Verlag für Radio-Foto-Kinotechnik G. m. b. H., Berlin-Borsigwalde, Eichborndamm 141 bis 167.
- Elektroteeh. u. Maschinenb. = Elektroteehnik und Maschinenbau. Zeitschrift des Elektroteehnischen Vereins Österreich, Springer Verlag, Wien.
- Elektrotech. Z. = Elektrotechnische Zeitschrift (ETZ). Ausg. Au. B. Verlag: Verband Deutscher Elektrotechniker, Wuppertal-Elberfeld, Brillerstr. 99.
- Elektrotehn. Vestn. jugosl. = Elektrotehniski Vestnik, Ljubljana, Elektrotechnische Fakultät.
- Elektrowärme Technik = Elektro-Verlag, W. Sachon KG., Mindelheim.
- Endeavour = Endeavour. London. Imperial Chemical Industries LtD.
- Entw. Ber. Siemens = Entwicklungsberichte der Siemens-Halske A. G., Berlin-München.
- Erdöl u. Kohle = Erdöl und Kohle. Industrie-Verlag, Herrnhausen A. G., Hamburg 11.

- Ergebn. exakt. Naturw. = Ergebnisse der exakten Naturwissenschaften. Springer-Verlag, Berlin W 35, Reichpietschufer 20.
- Experientia = Experientia, E. Birkhäuser, Basel 10, Elisabethenstr. 15.
- Exp. Tech. Phys. = Experimentelle Technik der Physik. Deutscher Verlag der Wissenschaften, Berlin C 2, Oberwasserstr. 11—12.
- Explosivstoffe, Mannh. = Explosivstoffe, Zeitschrift für das Sprengschieß-, Zünd-, Brand- und Gasschutzwesen. Mannheim, W 7, Verlag Erwin Barth.
- Farbe, Berlin. = Die Farbe, Musterschmidt Verlag, Göttingen, Berlin, Frankfurt.
- Feingerätetechnik = Feingerätetechnik, VEB Verlag Technik, Berlin NW 7, Unter den Linden 12.
- FeinwTech. = Feinwerk-Technik. Verlag: Winter'sche Verlagsbuchhandlung, Füssen/Allgäu, Wachsbleiche 7.
- Fernmeldetech. Z. = Fernmeldetechnische Zeitschrift. Braunschweig, jetzt Nachrichtentechnische Zeitschrift. Verlag: Vieweg.
- Forsch. Fortschr. = Forschungen und Fortschritte. Akademie-Verlag, Berlin W 8, Akademie-Verlag, Mohrenstr. 39.
- Forsch. H. MAN = MAN Forschungsheft. Maschinenfabrik Augsburg-Nürnberg. Verlag: E. Kieser K. G. Augsburg.
- Forschungsh. Ver. dtsch. Ing. = Forschungshefte. Verein deutscher Ingenieure. VDI-Verlag G. m. b. H., Düsseldorf.
- Fortschr. chem. Forsch. = Fortschritte der chemischen Forschung. Berlin, Göttingen, Heidelberg, Springer-Verlag.
- Fortschr. Phys. = Fortschritte der Physik. Akademie-Verlag Berlin.
- Fortschr. Röntgenstr. = Fortschritte auf dem Gebiet der Röntgenstrahlen. Georg Thieme Verlag, Stuttgart-O. Diemershaldenstr. 47.
- Frequenz = Frequenz. Fachverlag Schiele & Schön, Berlin SO 36, Schröderdamm 13.

- Funktechnik = Funktechnik. Fernsehen, Elektronik. Verlag für Radio-Photo-Kinotechnik, Berlin-Borsigwalde.
- Gas- u. Wasserfach = Gas- und Wasserfach. Verlag: R. Oldenbourg, München.
- Gen. Elect. Rev. = General Electric Review. Schenectady 5, N. Y.
- General Motors Engng J. == General Motors Engineering Journal, Box 177, North End Station, Detroit 2, Michigan.
- Geod. Inst. Medd. = Geodaetisk Instituts Meddelelser. København.
- Geod. Inst. Skr. = Geodaetisk Instituts Skrifter. København. Bianco Lunos, Bogtrykkeri A/S.
- Geofis. pur. appl. = Geofisica pura e applicata. Istituto geofisico italiano Milano.
- Geophysics. = Geophysics. (Society of Petroleum Geophysicists.) Houston, Tex.
- Glasers Ann. Glasers Annalen, Zeitschrift für Eisenbahnwesen und Verkehrstechnik. Georg Siemens Verlagsbuchhandlung, Berlin W 30, Nollendorfstr.. Bielefeld, Am Finkenbach.
- Handb. nat. Bur. Stand. = Handbook of the National Bureau of Standards. Washington.
- Helv. phys. acta = Helvetica physica acta. Basel. Verlag: Birkhäuser.
- Industrie Elektronik = Industrie Elektronik, Mitteilg. d. Elektro-Spezial GmbH., Hamburg 1.
- Industr. Engng. Chem. (Industr.) = Industrial and Engineering Chemistry.Easton, Pa. Industrial edition.
- Ingen.-Arch. = Ingenieur-Archiv. Springer-Verlag, Berlin-Göttingen, Heidelberg.
- Instruments = Instruments and Automation. Instruments Publishing Company, 921 Ridge Avenue, Pittsburgh 12, Pennsylvania.
- Iswest, Akad. Nauk SSSR Geophys. S. = Iswestija Akademi Nauk SSSR, Geophysikal. Reihe, Moskau.

- Iswest. Akad. Nauk SSSR Phys. S. =
  Iswestija Akademi Nauk SSSR, Physikal. Reihe, Moskau.
- Jb. dtsch. Ges. Chronom. = Jahrbuch der Deutschen Gesellschaft für Chronometrie. Stuttgart, Königstraße 1b.
- Jena. Jb. = Jenaer Jahrbuch. Wissenschaftliche Veröffentlichungen des Zeisswerks Jena. Kommissionsverlag G. Fischer, Jena.
- J. acoust. Soc. Amer. = Journal of the Acoustical Society of America. Menasha, Wis.
- J. Amer. ceram. Soc. = Journal of the American Ceramic Society. Easton, Pa.
- J. Amer. chem. Soc. = Journal of the American Chemical Society. Easton, Pa.
- J. Amer. Rocket Soc. (Jet Propulsion) = Journal of the American Rocket Society. Easton, Pa.
- J. appl. Mech. = Journal of Applied Mechanics. American Society of Mechanical Engineers, 29 West 39th Street, New York 18.
- J. Appl. Phys. = Journal of Applied Physics. American Institute of Physics, 57 East 55th Street, New York 22.
- J. atmos. terr. Phys. = Journal of Atmospheric and Terrestrial Physics. London, Burlington House, W. I.
- J. ceram. Ass. Japan. = Journal of the Ceramic Association, Japan. Tokyo.
- J. chem. Phys. = Journal of Chemical Physics. American Institute of Physics, 57 East 55th Street, New York 22.
- J. chem. Soc. = Journal of the Chemical Society. London, Burlington House WI.
- J. Chim. phys. = Journal de Chimie Physique. École Nationale Supérieure de Chimie, 11 rue Pierre Curie, Paris (V°).
- J. Colloid Sci. = Journal of Colloid Science. Academie Press, 125 East 23rd Street, New York 10.
- J. electrochem. Soc. siehe Trans. electrochem. Soc. = Transactions of the Electrochemical Society. New York.
- J. Electronics = Journal of Electronics, Taylor & Francis Ltd., London.

- J. Fac. Engng. Tokyo = Journal of the Faculty of Engineering, Tokyo Imperial University. Tokyo.
- J. Franklin Inst. = Journal of the Franklin Institute. 20th St. and Benjamin Franklin Parkway, Philadelphia 3 Pennsylvania.
- J. Geomagn. Geoelect., Kyoto = Journal of Geomagnetism and Geoelectricity. Kyoto.
- J. geophys. Res. = Journal of Geophysical Research, Johns Hopkins Press, Baltimore 18, Maryland.
- J. Inst. Met. = Journal of the Institute of Metals. London.
- J. Inst. Polyt., Osaka. = Journal of the Institute of Polytechnics. Osaka.
- J. Instn elect. Engrs. = Journal of the Institution of Electrical Engineers. London.
- J. Iron St. Inst. = Journal of the Iron and Steel Institute. London.
- J. Mech. Phys. Solids, Lond. = Journal of the Mechanics and Physics of Solids. Pergamon Press, 242 Marylebone Road, London N. W. 1.
- J. Nuclear Energy. London. = Journal of Nuclear Energy. Pergamon Press, London and New York.
- J. opt. Soc. Amer. = Journal of the Optical Society of America. American Institute of Physics, 57 East 55th Street, New York 22.
- J. photogr. Sci. = The Journal of Photographic Science. The royal Photographic Society of Great Britain 16, Princes Gate, London SW 7.
- J. phys. Chem. = The Journal of Physical Chemistry. New York.
- J. phys. Soc. Japan. = Journal of the Physical Society of Japan. Tokyo.
- J. Phys. Radium. = Journal de Physique et le Radium. 10 rue Vauquelin, Paris (Ve).
- J. Polym. Sci. = Journal of Polymer Science. New York.
- J. Rech. = Journal des Recherches du Centre National de la Recherche Scientifique. 13 Quai Anatole-France, Paris (VII<sup>e</sup>).

- J. Res. nat. Bur. Stand. = Journal of Research of the National Bureau of Standards. U. S. Government Printing Office Washington 25, D. C.
- J. sci. industr. Res. = Journal of Scientific and Industrial Research. Hillside Road, Pusa, Delhi, 5.
- J. sci. Instrum. = Journal of Scientific Instruments, Inst. of Phys. London.
- J. sci. Res. Inst., Tokyo = Journal of the Scientific Research Institute. Tokyo.
- J. Soc. Glass Tech. = Journal of the Society of Glass Technology Cheffield.
- Kältetech. = Kältetechnik. Verlag: C. F. Müller.
- Kolloidzschr. = Kolloidzeitschrift. Verlag: Dr. D. Steinkopff, Darmstadt.
- K. danske Vidensk. Selsk. (Dan. mat. phys. Medd.) == Kongelige Danske Videnskabernes Selskabs Skrifter. Kjobenhavn.
- K. tekn. Högs. Handl. siehe: Transactions Royal Inst. Tech. Stockholm.
- Konstruktion = Konstruktion. Werkstoffe/Versuchswesen im Maschinenbau und Apparatebau. Springer-Verlag, Berlin, Göttingen, Heidelberg.
- Kunststoffe = Kunststoffe. Carl Hanser, Zeitschriften-Verlag G.m.b.H., München 27.
- Kunststoff-Rdsch. = Kunststoff-Rundschau, Verlag: Brunke Garrels, Hamburg 26, Borgfelderstr. 83.
- Lichttechnik. Berl. = Lichttechnik Berlin. Verlag Helios, Berlin-Borsigwalde.
- Liebigs Ann. = Liebigs Annalen der Chemie. Verlag Chemie G. m. b. H., Weinheim, Bergstr.
- Mater. & Meth. = Materials and Methods. Reinhold Publishing. Corp., New York.
- Mech. Engng., N. Y. = Mechanical Engineering. New York 18.
- Medd. Lydtenkn. Lab. Kbh. = Meddelelse fra Lydteknisk Laboratorium, Kóbenhaven. Akademit for Tekniske Videnskaber, Kóbenhaven 10, Oesterooldjade.
- Med. Meteorolog. Hefte = Medizinisch-Meteorologische Hefte. Selbstverlag,

- Met. Amt f. Nordwestdeutschland, Hamburg.
- Mém. Soc. Sci. Liège = Mémoires de la Sociéte Royal des sciences de Liège Bruxelles. Verlag: Hermann, Paris, Rue de la Sorbonne 6.
- Mesures Contrôle ind. = Mesures et Contrôle Industriel. Paris. Verlags Revue Mesures Administration, 79, Avenue des Champs Elysées. Paris.
- Metal Progr. = Metal Progress. Cleveland 3, Ohio, American Soc. f. Metals, 7301 Enclid. Ave.
- Metall = Metall. Metallverlag G. m. b. H., Berlin, W 15, Düsseldorfer Str. 38.
- Metalloberfläche = Metalloberfläche. Verlag Carl Hanser, München, Ausg. A u. B.
- Met. Rdsch. = Meterologische Rundschau. Springer-Verlag, Berlin, Göttingen, Heidelberg.
- Microtecnic = Microtecnic, Lausanne 23, Avenue de la Gare.
- Mikroskopie = Mikroskopie. Wien.
- Misc. Publ. nat. Bur. Stand. = Miscellaneous Publications of the National Bureau of Standards. Washington.
- Misure e Regolazioni, Milano, Viale Piave 20.
- Mitt. Inst. angew. Math. E. T. H.

  Zuerich = Mitteilungen aus dem Institut für angewandte Mathematik an der Eidgenössischen Technischen Hochschule Zürich. Verlag: Birkhäuser, Basel.
- Mitt. Inst. Radiumforsch. Wien. = Mitteilungen aus dem Institut für Radiumforschung. Wien, Springer-Verlag.
- Mitt. Max-Planck-Gesellsch. = Mitteilungen aus der Max-Planck-Ges., Göttingen, Bunsenstr. 10.
- Mitt. Max-Planck-Inst. Physik d. Stratosphäre, = Mitteilungen aus dem Max-Planck-Institut für Physik der Stratosphäre. Weissenau bei Ravensburg. (Selbstverlag).
- Mschr. Feinmechan. Optik = Monatsschrift für Feinmechanik und Optik. Die Wirtschaft, Berlin W 8, Französische Straβe 13/14.

- Mon. Not. R. astr. Soc. = Monthly Notices of the Royal Astronomical Society. London, Burlington House.
- Nachr. Akad. Wiss. Göttingen = Nachrichten. Akademie der Wissenschaften in Göttingen. Math.-phys. Klasse. Göttingen. IIA u. IIB. Verlag: Vandenhoek & Ruprecht, Göttingen.
- Nachrichtentechnik. VEB-Verlag Technik, Berlin NW 7.
- Nachrichtentechnische Z. = Nachrichtentechnische Zeitschrift, Verlag Vieweg, Braunschweig.
- Nature, Lond. = Nature, London. Verlag: Macmillan and Co.
- Naturwissenschaften = Die Naturwissenschaften. Berlin. Springer-Verlag, Berlin und Göttingen.
- Ned. Tijdsehr. Natuurk. = Nederlandsche tijdsehrift voor natuurkunde. s'-Gravenhage. Verlag: Martinus Nyhoff N. V.
- Nobel Hefte = Nobel Hefte. Sprengmittel in Forschung und Praxis. Essen. Dynamit A. G., Troisdorf (Bez. Köln) u. Wasag-Chemie A. G. Essen.
- Noise Control USA, American Inst. Phys., Acustical Society of America, Lancaster, Pennsylvania.
- Notes appl. Sci. Nat. Phys. Lab. = Notes an Applied Science. National Physical Laboratory. H. M. Stationery Office, Kingsway, London, W. C. 2.
- Nuclear Physics, North-Holland Publishing Company, Amsterdam.
- Nucleonics = Nucleonics. New York,
  McGraw Hill.
- Nuovo Cim. = Nuovo Cimento, Pisa.
- Observatory = The Observatory. Oxford
- Occ. Notes R. Astr. Soc. Occasional Notes of the Royal Astronomical Society. London, Burlington House.
- **Öst. Ing. Arch.** = Österreichisches Ingenieurarchiv. Wien, Springer-Verlag.
- Onde élect. = Onde électrique, Editions Chiron, 40, rue de Seine, Paris.
- Opt. Acta = Optica Acta. Paris. Verlag: Sociéte de la Revue d'Optique 3, Paris.

- Optik, Stuttgart = Optik, Verlag: Wissenschaftliche Verlagsgesellschaft m. b. H., Stuttgart.
- Period. math.-phys. astr., Zagreb. =
  Glasnik Matematićko-Fizićki i Astronomski. Hrvatsko Prirodoslovno
  Društvo, Zagreb.
- Philips Res. Rep. = Philips research Reports, N. V. Philip's Gloeilampenfabrieken, Eindhoven.
- Philips tech. Rdsch. = Philips technische Rundschau. N. V. Philip's Gloeilampenfabrieken. Eindhoven.
- Phil. Mag. = Philosophical Magazine. Verlag: Taylorand and Francis, Ltd. London.
- Phil. Trans. Roy. Soc. Lond. = Philosophical Transaction of the Royal Society of London, Ser. A. Verlag; Cambridge Univ. Press, London u. New York.
- Photogr. u. Forsch. = Photographie und Forschung. Hausmitteilg. d. Zeiss-Ikon A. G., Stuttgart S, Dornhaldenstr. 5.
- Photogr. Korr. = Photographische Korrespondenz. Verlag: Dr. Othmar Helwich, Darmstadt u. Wien.
- Phototech. u. -wirtsch. = Phototechnik und -wirtschaft. Verlag: Radio-Foto-Kinotechnik, Berlin-Borsigwalde.
- Physica. = Physica. The Hague. N. V. Martinus Nyhoff's Boekhandel.
- Phys. Rev. = Physical Review. Ithaca, N. Y. Lancaster, Pa.
- Phys. To-day = Physics To-day, (American Institute of Physics.) New York.
- Phys. Bl. = Physikalische Blätter. Mosbach/Baden, Physik-Verlag.
- P. O. elect. Engrs'J. = Post Office Electrical Engineers' Journal. London. Dorling and Co., Ltd. Epsom.
- Prikladn. Mat. Mech. = Prikladnaja, Matematika j Mekhanika, Akademie der Wissenschaften d. UdSSR, Leningrad.
- Proc. Amer. Acad. Arts Sci. = Proceedings of the American Academy of Arts and Sciences. Boston.
- Proc. Auto. Div. Instn mech. Engrs = Proceedings of the Automobile Divi-

- sion, Institution of Mechanical Engineers. London.
- Proc. Camb. phil. Soc. = Proceedings of the Cambridge Philosophical Society, Cambridge, Univ. Press.
- Proc. Indian Acad. Sci. = Proceedings of the Indian Academy of Sciences, Bangalore.
- Proc. Inst. Radio Engrs, N. Y. = Proceedings of the Institute of Radio Engineers. New York. 1 East 79 Street.
- Proc. Instn elect. Engrs = Proceedings of the Institution of Electrical Engineers, London.
- Proc. Instn mech. Engrs, Lond. = Proceedings of the Institution of Mechanical Engineers. London, Birdcage-Walk.
- Proc. Int. Comm. Glass. London = Proceedings of the International Commission on Glass. Butterworths Scientific Publications, London.
- Proc. K. Ned. Akad. Wetensch. = Proceedings Koninklijke Nederlandsche Akademie van Wetenschappen. North-Holland, Publishing Comp. Amsterdam.
- Proc. nat. Acad. Sci. Wash. == Proceedings of the National Academy of Sciences. Washington. Mack Printing Company, Easton, Pa.
- Proc. nat. Inst. Sci. India. = Proceedings of the National Institute of Sciences of India. Calcutta, Park Street.
- Proc. R. Irish Acad. = Proceedings of the Royal Irish Academy. Dublin.
- Proc. phys. Soc. = Proceedings Physical Society, London. Ser. A + B. Taylor and Francis Ltd.
- Proc. roy. Soc. = Proceedings Royal Society, London, Serie A + B, Cambridge, Univ. Press.
- Proc. Soc. exp. Stress Anal. = Proceedings. Society for Experimental Stress Analysis. Cambridge. Mass.
- P. V. Com. Int. Poids Mes. = Procès-Verbaux des séances du Comité international des poids et mesures. Paris. Gauthier-Villars.
- Prod. Engng = Product Engineering. New York, McGraw-Hill.

- Progr. theor. Phys. Kyoto = Progress of Theoretical Physics, Kyoto. The Physical Society of Japan, Yukawa-Hall, Kyoto, Univ.
- Progressus = Progressus. Berlin. Fortschritte der Technik, Verlag Handelsblatt G. m. b. H., Düsseldorf, Pressehaus.
- Pubbl. Oss. geofis. Trieste = Pubblicazioni dell'Osservatorio geofisico, Trieste.
- Publ. astr. Soc. Japan = Publications of the Astronomical Society of Japan, Tokyo.
- Publ. astr. Soc. Pacif. = Publications of the Astronomical Society of the Pacific. San Francisco.
- R. C. Accad. Lincei = Atti della Accademia Nazionale dei Lincei. Rendiconti. Roma. Verlag: Accademia Nazionale dei Lincei.
- R. C. A. Review = R. C. A. Review.
  (Radio Corporation of America). New
  York, Princeton, N Y.
- Radiation Research. New York, Academic Press Inc., Publishers, New York 10.
- Radio Nachr. Siemens. = Radio Nachrichten, Hausmitteilungen der Siemens- & Halske A.G., Berlin-Siemenstadt, München, Karlsruhe.
- Radiol. Austr. = Radiologica Austriaca-(Österr. Röntgengesellschaft Wien.) Verlag: Urban & Schwarzenberg, Wien, Innsbruck.
- Radiology = Radiology Syracuse. Verlag: Radiological Soc. of North-America, 713.
- Rec. Acad. Serbe Sci. Inst. Nicolas Tesla = Receuil des travaux de l'Academie. Serbe des sciences Institut "Nicolas Tesla", Beograd.
- Regelungstechnik = Regelungstechnik München. Verlag: R. Oldenbourg. München.
- Rep. Inst. Speed Mech., Sendai = Report of the Institute for High Speed Mechanics. Tohoku Imperial University. Sendai.
- Rep. Opt. Lab. R. Inst. Tech. Stockholm = Report (3), The Optics Labo-

- ratory, Royal Institute of Technology, Stockholm 70, Schweden.
- Rep. Progr. Phys. = Report on Progress in Physics, London. Verlag: The Physical Society.
- Research, Lond. = Research. Science and its Application in Industry. London. Butterworths Scientific Publications Ltd.
- Rev. sci. Instrum. = Review of Scientific Instruments. Verlag: The American Institute of Physics, New York.
- Rev. mod. Phys. = Reviews of Modern Physics. Minneapolis.
- Rev. Cienc. apl. = Revista de ciencia aplicada. Madrid.
- Rev. Fac. Ciênc. Lisboa = Revista da Faculdade de Ciências. Lisboa.
- Rev. gén. Elect. = Revue générale de l'électricité. Paris. Verlag: Comité Electrotechnique Français et de l'union Technique de l'Electricité.
- Rev. Métall. = Revue d' métallurgie.
  (a) Mêmoires. (b) Extraits. Paris.
- Rev. Métrol. prat = Revue de métrologie pratique, poids et mesures. Paris.
- Rev. Opt. (théor. instrum.) = Revue d'Optique (théorique et instrumentale), Paris, Boulevard Pasteur.
- Rev. Son Paris. = Revue du son, Paris. Editions Chiron, 40 rue de Seine.
- Röntgenblätter = Röntgenblätter. Zeitschr. f. Röntgentechnik u. medwissenschaftl. Photographie, Baden-Baden. Verlag: W. Girardet. Essen.
- Röntgen- u. Lab.-Praxis. = Röntgen- und Laboratoriumspraxis. Stuttgart. Verlag: S. Hirzel.
- Rohde u. Schwarz Mitt. = Rohde & Schwarz Mitteilungen. München 9, Tassiloplatz 7:
- S. E. G. Nachr. = SEG Nachrichten. Standard Elektrizitäts-Gesellschaft-A.-G., Stuttgart-Zuffenhausen, Helmut-Hirth-Str. 42.
- Schweiz. Arch. angew. Wiss. Schweizer Archiv für angewandte Wissenschaft und Tecnik. Solothurn.
- Science. = Science. Washington 5, 1515, Massachusetts Ave.

- Sci. Industr. photogr = Science et industries photographiques. Paris. Boulevard Pasteur 3 et 5.
- Sci. Progr. = Science Progress, London. Ewald Arnold & Co., 41 Madelox Str.
- Scientia Elect. Zürich. = Scientia electrica, Zürich. S. Hirzel-Verlag, Zürich.
- Siemens-Z. = Siemens-Zeitschrift. Berlin-Siemensstadt, München, Erlangen.
- Silikattech. = Silikattechnik. VEB. Verlag Technik, Berlin NW 7, Unter den Linden 12.
- Shurnal Exp. teor. Fis. Moskau = Shurnal Experimentalnoi i Teoretitschesskoi Fisiki. Mosskwa. Akademie der Wissenschaften d. UdSSR Moskau u. Leningrad.
- Shurnal Tech. Fis. = Shurnal Technitschesskoi Fisiki, Mosskwa-Leningrad. Verlag: Akademie der Wissenschaften d. UdSSR Moskau u. Leningrad.
- S. B. dtsch. Akad. Wiss. = Sitzungsberichte der Deutschen Akademie der Wissenschaften zu Berlin.
- S. B. Ges. ges. Naturw. Marburg = Sitzungsberichte der Gesellschaft zur Beförderung der gesamten Naturwissenschaften zu Marburg. N. S. Elwertsche Verlagsbuchhandlung.
- S. B. öst. Akad. Wiss. = Sitzungsberichte der Österreichischen Akademie der Wissenschaften. Wien. Math. nat. Kl. Abt. II. Springer-Verlag.
- Sky & Telesc. = Sky and Telescope. Harvard College Observatory, Cambridge, Mass.
- Spectrochim. Acta = Spectrochimica Acta. London. Pergamon Press Ltd.
- Stahl u. Eisen, Düsseldorf = Stahl und Eisen, Düsseldorf.
- Staub = Staub. Deutscher Ing.-Verlag, Düsseldorf.
- Strahlentherapie = Strahlentherapie. Urban & Schwarzenberg, Berlin W 15, Meinekestr. 13.
- Studium gen. = Studium generale. Zeitschrift für die Einheit der Wissenschaften. Berlin. Springer-Verlag, Heidelberg.
- Suppl. Nuovo Cim. = Supplemento del Nuovo cimento, Bologna.

- Tech. News Bull. U. S. Bur. Stand. = Technical News Bulletin. U. S. Bureau of Standards. Washington.
- Technik, Berl. = Die Technik. Berlin, VEB-Verlag Technik, Unter den Linden 12.
- Tech. Mitt. Krupp = Technische Mitteilungen Krupp. Essen. Postfach 739.
- Tech. Mitt. schweiz. Telegr.- u. Teleph-Verw. = Technische Mitteilungen der Schweizerischen Telegraphen- und Telephon-Verwaltung. Bern. Speichergasse 6.
- Telefunkenztg. = Telefunkenzeitung. Telefunken G. m. b. H. Berlin, SW 61, Mehringdamm 32—34.
- Tele-tech. = Tele-tech. Formerly the tele-communications technical section of "Electronic Industries". New York.
- Trans. Amer. geophys. Un. = Transactions. American Geophysical Union. Washington.
- Trans. Amer. Soc. mech. Engrs. =
  Transaction of the American Society of Mechanical Engineers, New York.
- Trans. Brit. Ceram. Soc. = Transactions of the British Ceramic Society. Stoke-on-Trent.
- Trans. Chalmers Univ. Technol. = Chalmers Tekniska Högskolas Handlingar. Göteborg.
- Trans. Faraday Soc. = Transaction of the Faraday Society. London. Verlag: Gourney and Jackson.
- Trans. Illum. Engng. Soc. = Transaction of the Illuminating Engineering Society. London.
- Trans. Inst. Radio Engrs Prof. Group = Transaction of the Institute of Radio Engineers Professional Groups. 1 East 79th Street, New York 21.
- Trans. Instr. a. Meas. Conf. Stockholm = Transaction of the Instruments and Measurements Conference, Stockholm. Royal Swedish Academy of Engineering Sciences.
- Trans. Roy. Inst. Technol. Stockholm =
  Transactions of the Royal Institute of
  Technology, (K. tekn. Högsk. Handl.)
  = Kongliga Tekniska Högskolans
  Handlingar. Stockholm.

- Uhr = Die Uhr. (Fachzeitschrift der deutschen Uhrmacher.) Verlag: Karl Fulde, Köln.
- Universitas = Universitas. Zeitschrift für Wissenschaft, Kunst und Literatur Stuttgart. Wissenschaftliche Verlagsgesellschaft m. b. H.
- Usp. fis. nauk (russ.) = Usspechi Fisitschesskich Nauk. Mosskwa, Leningrad. Akademie der Wissenschaften der UdSSR, Moskau-Leningrad.
- Vacuum Lond. = Vacuum London. W. Edwards and Co. Ltd., Woarsley, Bridge Road.
- Vakuumtechnik. Berlin. Rudolf A. Lang-Verlag. Berlin-Charlottenburg 4.
- Verh. Akad. Wet. Amst. = Verhandelingen der Konink. Akademie van wetenschappen. Eerste Reeks. Amsterdam. NV Nord-Hollandsche Uitgevers Mij.
- Vide, Paris. Le Vide. Technique, applications. Paris 6, Sociéte des Ingenieurs Techniciens du Vide 44 rue de Reimes.
- Vjschr. naturf. Ges. Zürich = Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich. Gebr. Fretz A. G. Zürich.
- Werkst. u. Betr. = Werkstatt und Betrieb. München. Carl Hauser-Verlag.
- Werkstattstechnik = Werkstattstechnik und Maschinenbau. Berlin, Düsseldorf. Verlag: Springer und Deutscher Ing.-Verlag.
- Werkst. u. Korrosion, Mannheim = Werkstoffe und Korrosion, Mannheim. Verlag: Chemie, Weinheim, Bergstr.
- Wireless Engr = Wireless Engineer, the Journal of Radio Research and Progress. London, Iliffe and Sons, Stamford Street.
- Wiss. Abh. Dtsch. Amt Mass u. Gew. = Wissenschaftliche Abhandlungen des deutschen Amtes für Maß und Gewicht. Weida/Thür./Berlin C 2, Niederwallstr. 18—20.
- Wiss. Z. Luther Univ. Halle. Math. Nat. R. = Wissenschaftliche Zeitschrift der Martin-Luther-Universität, Halle-Wittenberg.

- Wiss. Z. Schiller Univ. Jena. Math. Nat. R. = Wissenschaftliche Zeitschrift der Friedrich-Schiller-Universität, Jena, Goetheallee 6.
- Wiss. Z. Techn. Hochsch. Dresden = Wissenschaftliche Zeitschrift der Technischen Hochschule. Dresden.
- Zeiß-Werkz. = Zeiß-Werkzeitschrift. Oberkochen/Württemberg.
- Z. anal. Chem. = Fresenius. Zeitschrift für analytische Chemie. Berlin. Springer-Verlag Berlin, Göttingen, Heidelberg. J. F. Bergmann, München.
- Z. angew. Math. Mech. = Zeitschrift für angewandte Mathematik und Mechanik. Berlin N 4, Akademie-Verlag, Chausseestr. 106.
- Z. angew. Math. Phys. = Zeitschrift für angewandte Mathematik und Physik. Basel. Birkhäuser-Verlag.
- Z. angew. Phys. = Zeitschrift für angewandte Physik. Berlin und München. Springer-Verlag. Berlin W 35, Reichpietschufer 20.
- Z. anorg. Chem. = Zeitschrift für anorganische und allgemeine Chemie. Leipzig, Verlag; J. A. Barth, Leipzig C 1.
- Z. Astrophys. = Zeitschrift für Astrophysik. Berlin. Springer-Verlag.
- Z. Elektrochem. = Zeitschrift für Elektrochemie (u. angewandte physikalische Chemie). Berlin. Verlag: Chemie G. m. b. H., Weinheim/Bergstr.
- Z. Geophysik. = Zeitschrift für Geophysik. Würzburg, Physika-Verlag, Rudolf Liebig A. G., Rotlöwengasse 2.

- Z. Kristallogr. = Zeitschrift für Kristallographie. Frankfurt/M., Akademische Verlagsgesellschaft.
- Z. Metallk. = Zeitschrift für Metallkunde. Stuttgart. Dr. Riederer-Verlag G. m. b. H.
- Z. Met. = Zeitschrift für Meteorologie. Berlin. Akademie-Verlag G. m. b. H.
- Z. Naturf. = Zeitschrift für Naturforschung. Wiesbaden, Tübingen, Mathildenstr. 29.
- Z. Phonetik = Zeitschrift für Phonetik und allgemeine Sprachwissenschaft. Akademie-Verlag, Berlin.
- Z. Phys. = Zeitschrift für Physik. Berlin und Heidelberg. Springer-Verlag.
- Z. phys. Chem. = Zeitschrift für physikalische Chemie. Neue Folge. Akademische Verlagsgesellschaft m. b. H., Frankfurt/M., Holbeinstr. 25—27.
- Z. phys. Chem. = Zeitschrift für physikalische Chemie. Akademische Verlagsgesellschaft Geest & Portig K. G. Leipzig.
- Z. Ver. dtsch. Ing. = Zeitschrift des Vereins Deutscher Ingenieure. Düsseldorf. Deutscher Ing.-Verlag.
- Z. wiss, Mikr. = Zeitschrift für wissenschaftliche Mikroskopie und mikroskopische Technik. Stuttgart. Verlag: S. Hirzel.
- Z. wiss. Photogr. = Zeitschrift für wissenschaftliche Photographie, Photophysik und Photochemie. Leipzig. Verlag: Joh. Ambrosius Barth.

## Stoffgliederung der "Physikalischen Berichte"

#### 1. Allgemeines

- 1. Allgemeines (Stellung und Abgrenzung der Physik, Sprachgebrauch u. ä.).
- 2. Lehrbücher, Tabellenwerke, Monographien.
- 3. Biographisches und Geschichtliches.
- 4. Unterrichtsfragen, Lehrfilme.
- 5. Mathematik.
- 6. Relativitätstheorie.
- 7. Quanten- und Wellenmechanik.
- 8. Andere allgemeinere theoretische Ansätze.
- 9. Philosophische Grenzfragen.
- 10. Größen-Definitionen (Dimensionen).
- 11. Einheiten.
- 12. Allgemeine Konstanten (c, h, e, e/m, k, L, R, . . .)
- 13. Auswertung von Messungen.
- Allgemeine Labor- und Werktechnik (Vakuumtechnik, Druck- und Hochdrucktechnik, Laborausrüstung, Technische Kunstgriffe, Regeltechnik, Betriebskontrolle).

#### 2. Mechanik

- Allgemeines (Analytische Mechanik, Messung mechanischer Größen, Schwingungsanalyse).
- 2. Mechanik fester Körper, Elastizität (Härte, Festigkeit, Lose Massen).
- 3. Plastizität, Viskosität, mechanische Relaxation.
- Mechanik flüssiger und gasförmiger Körper, Hydro- und Aerodynamik (Meßmethoden, Superfluidität, Kavitation, Hydrodynamische Maschinen, Flugtechnik, Schmierung).
- Technische Mechanik (Statik und Dynamik, Getriebe, Wärmekraftmaschinen, Erschütterungen, Schwingungen, Reibung).
- 6. Ballistik.

#### 3. Akustik

- 1. Allgemeines (Schallfeld, Normalfrequenz, Tonbereich, Geräusche).
- 2. Meßverfahren.
- 3. Schallerzeugung (Mechanische und elektrische Schallerzeugung, Elektroakustische Wandler, Musikinstrumente).
- Schallausbreitung (Schallgeschwindigkeit, Brechung, Dispersion, Beugung, Schallabsorption, Schall in begrenzten Räumen, Schallfilter, Schallschutz).
- 5. Schallempfang.
- 6. Schallaufzeichnung.
- 7. Infra-Ultraschall.

#### 4. Wärme

- 1. Allgemeines (Temperaturskala).
- 2. Temperaturmessung.
- 3. Wärmemengenmessung.
- 4. Wärmeleitung, Wärmeübergang, Wärmeaustausch.
- 5. Einfluß der Temperatur auf Volumen und Struktur.
- 6. Thermodynamik (1. Hauptsatz, 2. Hauptsatz, 3. Hauptsatz, Zustandsänderungen, Chemische Gleichgewichte, Grenzflächen, Irreversible Prozesse).
- 7. Hygrometric (Dampf-Luftgemisch, Trocknung, Klimaanlagen).
- 8. Wärmestrahlung.
- 9. Statistische Thermodynamik (Schwankungserscheinungen, Informationstheorie).
- Kinetische Gastheorie (Wechselwirkungen und Reaktionen, Transporterscheinungen).

#### 5. Aufhau der Materie

- 1. Allgemeines (Häufigkeit der Elemente, Periodisches System).
- Kernphysikalische Meβverfahren (Zählrohr, Zähler, Ionisationskammer, Wilsonkammer, Massespektrographen, Kernphysikalische Methoden).
- 3. Kernphysikalische Beschleunigungsmethoden.
- 4. Technik der Kernenergie (Kernmeiler).
- 5. Elementarteilchen.
- 6. Atomkerne.
- 7. Kernreaktionen (Natürliche Radioaktivität, Kernspaltung, Radioaktive Isotope, Kernstrahlung, Durchgang energiereicher Strahlung durch Materie, Strahlungsschädigung in der Materie und chemische Wirkung).
- 8. Kosmische Strahlung.
- Korpuskularstrahlen (Bewegung von Teilchen im Feld, Erzeugung, Nachweis. Atom- und Molekularstrahlen, Kanalstrahlen, Wechselwirkung von Korpuskularstrahlen mit der Materie, Raumladung).
- Atome (einschließlich Atomspektren) (Elektronenanordnung, Spektren und Terme, Röntgenspektren, Feinstruktur, Zeeman- und Starkeffekt, Anregung. Übergangswahrscheinlichkeiten, Linienbreite).
- 11. Moleküle (Molekülstruktur und chemische Bindung, Dissoziation und Ionisation, Molekülspektren, Anregung von Molekülspektren, Lebensdauer angeregter Zustände, Übergangswahrscheinlichkeit, Wechselwirkungen, Assoziation, freie Radikale).
- 12. Kristalle (Strukturbestimmung, Kristallographie, Kristallbau, Kristallwachstum, Gitterstörungen, Absorptionsspektren von Kristallen, Makrostruktur, Diffusion, Amorphe Körper).
- 13. Flüssigkeiten (Struktur, Unterkühlte Flüssigkeiten, Absorptionsspektren, Dif-
- 14. Anisotrope Flüssigkeiten (Struktur und Eigenschaften).
- 15. Makromoleküle (Untersuchungsverfahren, Polymerisation, Molekulargewicht,
- Löslichkeit, Struktur, Eigenschaften, Kunststoffe).

  16. Grenzflächen und dünne Schichten (Struktur und Eigenschaften, Oberflächenspannung und Kapillarität, Adsorption, Aktive Oberflächen, Dünne Schichten und Filme, Membranen, Schaum).
- 17. Disperse Systeme (Sole und Gele, Emulsionen, Suspensionen, Sedimantation).

#### 6. Elektrizität und Magnetismus

- 1. Allgemeines.
- 2. Meßmethoden und Instrumente (Meßinstrumente, Meßmethoden, Schaltelemente).

- 3. Elektrostatik.
- 4. Magnetostatik.
- Magnetismus (Ferro-, Ferri- und Antiferromagnetismus, Kern-, para- und ferromagnetische Resonanz, Para- und Diamagnetismus, Magnetomechanische Effekte, Magnetokalorischer Effekt).
- 6. Elektrodynamik (Maxwellsche Theorie, Induktion, Selbstinduktion).
- 7. Metallische Leitung (Theorie, Galvano- und thermomagnetische Effekte, Halleffekt).
- 8. Supraleitung.
- 9. Halbleiter (Anorganische und organische Halb- und Photoleiter, Technische Anwendung).
- Ionenleitung in Flüssigkeiten (Theorie, Elektrolyte, Elemente, Akkumulatoren, Elektrolytische Oberflächentechnik).
- Leitung in Gasen (auch Flammen) (Untersuchungsverfahren, Elementarprozesse, Zündung und Durchschlag, Unselbständige Entladung, Koronaentladung, Selbständige Entladung, Entladungsröhren, Chemie der Gasentladung).
- 12. Dielektrika (Piezoelektrizität, Pyroelektrizität).
- Grenzflächen (Elektrische Aufladung, Grenzflächen von Leitern, Elektronen an und aus Grenzflächen).
- 14. Schwachstromtechnik (Schaltungstechnik und Leitungen).
- 15. Starkstrom- und Hochspannungstechnik (Elektrische Maschinen, Technische Anlagen, Umrichtertechnik Isolation, Entstörung).
- lagen, Umrichtertechnik, Isolation, Entstörung).
  16. Physik der elektrischen Wellen (Theorie, Ausbreitung in begrenzten Räumen, Rauschen, Erzeugung, Schaltelemente, Selektivmittel, Bildtelegraphie und Fernsehen, Funkpeilung, Ortung).
- 17. Röhrentechnik (Vervielfacher, Röntgenröhren, Thyratron).

## 7. Optik

- 1. Allgemeines (Cerenkovstrahlung, Photophorese).
- 2. Meßtechnik und Instrumente.
- 3. Interferenz, Beugung, Streuung.
- 4. Brechung, Dispersion, Reflexion.
- 5. Absorption, Emission, Remission.
- 6. Geometrische Optik.
- 7. Kristalloptik, Polarisation, Doppelbrechung.
- 8. Optik bewegter Körper (Dopplereffekt).
- 9. Lichttechnik (Grundlagen, Einheiten und Normalien, Lichtquellen).
- 10. Photochemische Reaktionen (Photographie). (Sensibilisierung, Anwendung).
- 11. Materiewellen (Interferenzen, Beugung, Korpuskularstrahloptik, Ionenoptik).
- 12. Lumineszenz in kondensierten Phasen (Lebensdauer angeregter Zustände, Kristallphosphore, Chemilumineszenz, Tribolumineszenz).

### 8. Werkstoffe

- 1. Allgemeines.
- 2. Werkstoffprüfung (Strukturuntersuchungen).
- 3. Metalle, Legierungen (Struktur und technologische Eigenschaften, Metallegierungen, Sintermetalle).
- 4. Keramische Werkstoffe (Gläser).
- 5. Gesteine und Mineralien.
- 6. Organische Werkstoffe (Holz, Leder, Teerprodukte).
- 7. Brennstoffe, Öle, Schmiermittel.

- 8. Aufbereitung, Alterung, Technologie (Korrosion, Verschleiß, Oberflächentechnik).
- 9. Technische Anwendungen, Bearbeitung (Formgebung, Verbindung von Werkstücken).

## 9. Biophysik

- 1. Allgemeines (Biologische Grundvorgänge, Treffertheorie, Physikalische Meß- und Untersuchungsmethoden, Staub).
- 2. Physiologische Akustik (Hörvorgang, Sprache).
- 3. Physiologische Wärme (Wärmehaushalt, Wärmetherapie).
- 4. Physiologische Elektrizität (Beeinflussung biologischer Vorgänge, Hochfrequenztherapie).
- 5. Physiologische Optik (Sehen, Farbenlehre).
- Strahlenbiologic (Apparative Einrichtungen, Dosimetrie, Biochemische-Biologische Strahlenwirkung, Röntgendiagnostik, Licht- und UV-Therapie, Strahlenschutz).

## 10. Astrophysik

- 1. Allgemeines, Instrumentelles (Observatorien, Beobachtungsgeräte, Zeitzeichen und Zeitnormal).
- 2. Sonne (Aufbau, Strahlung, Sonnenoberfläche, Sonnenfinsternis).
- 3. Planeten und Monde (Himmelsmechanik, Zodiakallicht, Weltraumrakete).
- 4. Kometen und Meteore.
- 5. Sternaufbau (Sternatmosphären, Strahlung).
- Fixsterne und galaktische Objekte (Helligkeit, Größe, Temperatur, Veränderliche, Novae, Galaktische Kurzwellenstrahlung).
- 7. Interstellare Materie (Zusammensetzung, Verteilung).
- 8. Stellarstatistik.
- 9. Sternsysteme (Milchstraße, Sternhaufen).
- Auβergalaktische Objekte (Nebel, Rotverschiebung, außergalaktische Kurzwellenstrahlung).
- 11. Kosmologie (Weltmodelle).
- 12. Kosmogonie (Entstehung des Universums).

### 11. Geophysik

- 1. Allgemeines.
- 2. Erdkörper, Schwere (Geodasie, Schwere).
- 3. Erdkruste, Seismik, Vulkanismus.
- 4. Erdmagnetismus, Erdströme.
- 5. Polarlicht, Nachthimmelslicht, Ionosphäre.
- 6. Luftelektrizität, Radioaktivität der Atmosphäre.
- 7. Physik der Gewässer, Glazeologie (Ozeanographie, Hydrologie).
- 8. Physik der Atmosphäre (Apparate und Methoden, Aufbau, Wettervorhersage, Klimatologie, Strahlung, Akustische Erscheinungen).
- 9. Angewandte Geophysik (Gravimetrische, seismische, elektrische, magnetische, radioaktive Bodenforschung).



## Alphabetisches Namenregister

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(ä, ö, ü suche man unter ae, oe, ue; ø unter oe; å unter a; Mc unter Mae)

#### A

Aamodt, L. C., Fletcher, P. C., Silvey, G. and Townes, C. H. Spin and quadrupole moment of Se<sup>75</sup>. 45.

Aarons, Jules. Antenna and receiver measurements by solar and cosmic noise. 172.

Aarts, J., Harting, D. and Bakker, C. J. Relative oscillator strengths for lines of Fe I. 1834.

Abadie, P., Charbonniere, R., Gidel, A., Girard, P. et Guilbot, A. Eau dans la cristallisation du maltose et du glucose et états de l'eau de sorption de l'amidon d'aprês les spectres d'absorption en radiofréquences. 355.

sorption en radiofréquences. 355. Abadie, Paul s. Girard, Pierre. 714. Abbad, M. s. García-Blanco, S. 1671. Abbate, M. J. s. Blout, E. R. 2262.

Abbot, C. G., Aldrich, L. B. and Froiland, A.G. Smithsonian pyrheliometry. 1579.

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## ÜBERSICHT

# 53 Physik

Auszug aus der internationalen Dezimalklassifikation:

## Übersicht über die Hauptabteilungen

530.1 Grundlehren der Physik

#### 531/534 Mechanik

#### 521 Allgemeine Mechanik. Mechanik fester Körper

- .1 Kinematik
  - Kräfte. Massen. Statik
  - Dynamik. Kinetik .3
  - Arbeit. Reibung. Passiver Widerstand .4
  - Schwerkraft. Gravitation. Pendel. Ballistik Mechanische Energie .5
  - .6
  - Messung geometrischer und mechanischer Größen
  - .8 Theorie der Maschinen. Allgemeines über technische Mechanik

#### 539 Mechanik der Flüssigkeiten

- .1 Allgemeine Hydrostatik
- Gleichgewicht von Flüssigkeiten
- Eingetauchte und schwimmende Körper .5
- Flüssigkeitsbewegung. Hydrodynamik .6 Kapillarität
- Kinetische Theorie der Flüssigkeiten

#### 533 Mechanik gasförmiger Körper. Aerodynamik

- .1 Eigenschaften von Gasen
- Elastizität. Zusammendrückbarkeit. Verflüssigung. Gasgemische
- .4
- Verdünnte Gase. Vakuumphysik. Vakuumtechnik
- .6 Luftfahrt. Aerodynamik
- Kinetische Theorie der Gase

#### 534 Akustische Schwingungen

- .1 Schwingungen von Körpern. Schwingungserregung
- Ausbreitung der Schwingungsbewegung
- .3 Musikalische Klänge und Empfindungen. Musikinstrumente
- Analyse und Synthese von Klängen .4
- Zusammensetzung von Schwingungen
- .6 Akustische Meßtechnik
- .7 Physiologische und medizinische Akustik
- .8 Anwendungen der Akustik

#### 535 Optik

- .1 Theorie des Lichtes
- .2 Fortpflanzung und Intensität des Lichtes. Photometrié
- Fortpflanzung. Reflexion. Brechung. Absorption. Emission.
- .4 Interferenzen. Beugung. Diffusion durch Beugung
- Polarisation. Doppelbrechung. Dispersion in anisotropen Körpern .5
- .6 Die verschiedenen Bereiche elektromagnetischer Schwingungen. Farben und ihre Eigenschaften
- .7 Physiologische Optik
- .8 Anwendungen. Optische Geräte

#### 536 Wärmelehre

- .1 Allgemeine Theorie der Wärme
- .2
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- .4 Wirkung von Wärmezufuhr und Temperatur auf das Volumen und die Struktur der Körper
- Temperaturmessung. Temperaturreglung
- .6 Wärmemengenmessung. Kalorimetrie
- .7 Thermodynamik. Energetik
- .8 Theorie der Wärmekraftmaschinen

#### 537 Elektrizität

- 1.1 Theorie der Elektrizität
- Statische Elektrizität
- .3 Elektrische Ströme. Elektrokinetik
- Elektrische Entladungen. Elektrische Strahlung
- Elektrische Messungen

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- Elektromagnetismus. Elektrodynamik
- Induktion. Veränderliche Ströme
- .6 Wirkungen von Magnetfeldern. Einflüsse auf Magnetfelder

#### 539 Physikalischer Aufbau der Materie

- .1 Physik der Kerne, Atome und Moleküle
- .2 Struktur von Molekularsystemen
- .3 Elastizität. Formänderung
- .4
- Die Formänderungsfähigkeit beeinflussende Stoffeigenschaften
- .6 Intermolekulare Kräfte
- .8 Sonstige physikalisch-mechanische Wirkungen

## Besondere Anhängezahlen, Übersicht

In der Abteilung 53 Physik sind besondere Anhängezahlen anwendbar, die bei den einzelnen Unterabteilungen von 53 aufgeführt sind. Sie sind auf folgender Grundlage aufgebaut:

- .01 Theorie und Natur von Erscheinungen
- .02 Allgemeine Gesetze von Erscheinungen
- .023 Empirische Formeln
- Darstellung und Ursachen von Erscheinungen .03
- .04 Wirkung von Erscheinungen
- .043 Physikalische Wirkungen

- .044 Chemische Wirkungen
  - .047 Biologische Wirkungen
  - .05 Beobachtung, Aufzeichnung und Sichtbarmachen von Erscheinungen
  - .06 Anwendung und Nutzbarmachung von Erscheinungen
  - .07 Apparate für Studium und Darstellung von Erscheinungen
  - .08 MeBverfahren
  - .09 Abhängigkeit von Erscheinungen von fundamentalen physikalischen Einflüssen
    - die besonderen Anhängezahlen .09/.098 sind für bibliographische Zwecke zu vermeiden, zur Kennzeichnung der verschiedenen Einflüsse sind Verbindungen mittels Doppelpunkt zu benutzen, vgl. Abschnitt: Wirkungen und Einflüsse.
  - .091 Mechanische Einflüsse (ohne Druck)
  - '.092 Einfluß von Druck
  - .093 Einfluß von Feuchtigkeit
  - .096 Einfluß von Temperatur
  - .097 Elektrische Einflüsse
  - .098 Magnetische Einflüsse

## Besondere Anhängezahlen für Messungen

- 53.08 Allgemeine Grundlagen und Theorien der Messungen und der Bauart von Meßgeräten siehe auch 681,2 Bau von Meßgeräten
  - .081 Einheiten, Konstanten, Stoffwerte
    - .1 Einheiten (allgemein)
    - .3 Absolute Einheiten. Skalen
    - .4 Relative und praktische Einheiten und Zahlen
    - .5 Dimensionen der Einheiten
    - .6 Natur-Konstanten
    - .7 Stoffwerte, Material-Konstanten